Author Index of Volume 53

Ahmad, S. A., 23
Arean, C. O., 397
Arshady, R., 111
Augustine, R. L., 9
Avery, E. E., 179

Baevsky, M. F., 179
Baibich, I. M., 193
Ballesteros, A., L1
Barate, M., L1
Basato, M., 111
Bassoli, A., 173
Bondarenko, T. N., 293
Boorman, P. M., 371, 381
Braswell, S. J., 179
Brown, J. R., 381
Buck, T., L17

Campostrini, R., L13
Carturan, G., L13
Chan, A. S. C., 417
Chioccara, F., 173
Chong, K., 381
Chuvilin, A. L., 315
Coluccia, S., 397
Corain, B., 111

della Giustina, L., 111
Deshpande, V. M., L21
Di Gregorio, G., 173
D'Ilario, L., 1
Dirè, S., L13
Drago, R. S., 229
Duffus, C. W., 179
Du Plessis, J. A. K., 67
Du Toit, C. J., 67

Esteruelas, M. A., 43
Evans, G. O. II, 179

Fairbridge, C., 371, 381
Farona, M. F., 203
Fernandez, V. M., L1
Ferragina, C., 349
Fierro, J. L. G., 359
Fontanille, M., 193
Ford, P. C., 247

Giannoccaro, P., 349
Goldstein-Getty, C. S., 229
Gotoh, M., 285

Halligudi, S. B., 305
Haruštiak, M., 209
Hayakawa, T., 15, 105, 165
Holgado, M. J., 407
Hronec, M., 209

Ichikawa, S., 53
Ilavský, J., 209
In Hwan Oh, 105
Ishida, H., L5

Jasim, K. S., 371, 381
Jin-Kai Wang, 155

Kareem, S. A., 275
Karube, I., 285
Keller, A., L9
Kharson, M. S., 293
Kochubey, D. I., 315
Kubo, I., 285
Kucherov, A. V., 293
Kydd, R. A., 371, 381

Lachmann, G., 67
La Ginestra, A., 349
Lemos, F., 265
Lewis, J. M., 381
Likholobov, V. A., 315
Liu Jiwan, 9
Lopes, J. M., 265
Lora, S., 111
Lucas, C., 193

Massucci, M. A., 349
Mastikhin, V. M., 37
Meyer, U., 43
Miller, J. G., 229
Minachev, Kh. M., 293
Miranda, R., 275
Moiseev, I. I., 315
Moro, G., 349
Munilla, R., L1

Namba, S., 155
Narasimhan, C. S., L21
Neibecker, D., 219
Nobile, C. F., 349
Nosov, A. V., 37

Ohkubo, K., L5
Orita, H., 15, 105, 165
Oro, L. A., 43

Palma, G., 111
Pardey, A. J., 247
Parlier, A., 193
Pastor, E., 359
Patrono, P., 349
Pittman, C. U., Jr., 79
Platero, E. E., 397
Preussner, E., L17

Ramôa Ribeiro, F., 265
Rao, K. M., 397
Réau, R., 219
Reyes, P., L1
Richmond, M. G., 79
Rindone, B., 173
Rives, V., 407
Rocha, D. K., 179
Roncato, M., 111
Rudler, H., 193
Ruiz-Argüeso, T., L1

Sagawa, T., L5
Scardi, P., L13
Schulz-Ekloff, G., L17
Shimizu, M., 15, 105, 165
Shukla, S., 305
Siddiqui, M. R. H., 23
Slinkin, A. A., 293
Snel, R., 129, 143
Sola, E., 43
Soum, A., 193
Srinivasan, R., 203
Steffan, M. M., 1
Stolarov, I. P., 315
Suzuki, M., 285

© Elsevier Sequoia/Printed in The Netherlands

Takehira, K., 15, 105, 165
Tamiya, E., 285
Taqui Khan, M. M., 23, 305
Terreros, P., 359
Tollari, S., 173
Vargaftik, M. N., 315
Vasnetsov, S. A., 37
Weiss, K. D., 229
Werner, H., 43
Wöhrle, D., L17
Wynne, R. A., 179
Yashima, T., 155
Young, D. A., 433
Zagorodnikov, V. P., 315
Zakharov, V. A., 37
Zamaraev, K. I., 315
Zecca, M., 111
Zecchina, A., 397

Subject Index of Volume 53

Adsorption
effect of strong metal–support interactions on, of saturated hydrocarbons on Rh/TiO_2: role of chloride, 407
nature of hydrocarbon synthesis by means of hydrogenation of CO on Fe-based catalysts: dynamic adsorption/desorption equilibria, 143
Alcohols
ethanol; mono-oxygenation of cyclopentene by molecular oxygen catalyzed by $PdCl_2$–$CuCl_2$ in, 15
metal complex-catalyzed phenol coupling of phenolic benzylisoquinoline alkaloids, 173
and olefins; giant Pd clusters as catalysts of oxidative reactions of, 315
Alkaloids
phenolic benzylisoquinoline; metal complex-catalyzed phenol coupling of, 173
Alkanes
n-heptane; influence of cation content on catalytic properties of PrHNaY zeolites in cracking of, 265
saturated hydrocarbons; effect of strong metal–support interactions on adsorption of, on Rh/TiO_2: role of chloride, 407
Alkenes, Olefins
and alcohols; giant Pd clusters as catalysts of oxidative reactions of, 315
aromatic olefin oxygenation with tetrahydroborate and dioxygen catalyzed by manganese porphyrin, 165
benzocyclobutenes; synthesis of, from reactions of α,ω-diynes catalyzed by Nb(V) and Ta(V) halides, 203
cyclohexene; thermodynamics of homogeneous hydrogenation of, catalyzed by some water-soluble Ru complexes containing π-acidic ligands, 23
cyclopentene; dichloropalladium complex assisted mono-oxygenation of, by t-butyl hydroperoxide, 105
cyclopentene; mono-oxygenation of, by molecular oxygen catalyzed by $PdCl_2$–$CuCl_2$ in ethanol, 15
1,4-dimethoxy-2-butene; homogeneous catalytic dicarbonylation of, 417
ethylene oligomerization catalyst precursors, synthesis and structure of zirconium tetrachloride ester complexes, 433
hept-1-ene hydroformylation on phosphinated polystyrene-anchored Rh complexes, 359
1-hexene; stereoelectronic properties of ligands and hydroformylation of: phospholes as ligands for Rh systems in homogeneously-catalyzed hydroformylation reactions, 219
interaction of Lewis acids with alkene–carbene complex of W: formation of 1:1 adduct in solution, 193
olefin metathesis catalyst; synthesis and properties of diacetatodinitrosylmolybdenum complex as precursor for, L9
olefin oligomerization and aromatization on parent and dehydroxylated H-ZSM-5: formation of radicals and catalytic activity of H-ZSM-5-type zeolites in unsaturated hydrocarbon conversions, 293
α,β-unsaturated ketones and cyclohexadienes catalyzed by $MHCl(CO)(P^iPr_3)_2$ (M = Ru, Os) complexes; reduction of, 43
Aluminium
attempts to heterogenize $Ir_4(CO)_{12}$–Al_2Cl_6 homogeneous CO hydrogenation catalyst, 229
evaluation of catalytic activity of clusters supported on γ-alumina and fluorided γ-alumina; supported Mo cluster complexes as catalyst precursors, 381
preparation, spectroscopic characterization and thermal stability of clusters supported on γ-alumina; supported Mo cluster complexes as catalyst precursors, 371

© Elsevier Sequoia/Printed in The Netherlands

Aromatic compounds
aromatic olefin oxygenation with tetrahydroborate and dioxygen catalyzed by manganese porphyrin, 165
cyclotrimerization and cocyclotrimerization of phenylacetylene with 1,7-octadiyne and 1-hexyne by Nb(V) chloride, 67
hept-1-ene hydroformylation on phosphinated polystyrene-anchored Rh complexes, 359
homogeneous catalysis of water–gas shift reaction by Rh complexes in aqueous substituted pyridine solutions, 247
kinetics and mechanism of cobalt bromide catalyzed oxidation of *p*-xylene in presence of phase transfer catalysts, 209
metal complex-catalyzed phenol coupling of phenolic benzylisoquinoline alkaloids, 173
oxidative carbonylation of aniline catalyzed by Pd(II)-2,2′-bipyridyl complex intercalated in α-Zr–phosphate, 349
synthesis of benzocyclobutenes from reactions of α,ω-diynes catalyzed by Nb(V) and Ta(V) halides, 203
Aromatization
and olefin oligomerization on parent and dehydroxylated H-ZSM-5: formation of radicals and catalytic activity of H-ZSM-5-type zeolites in unsaturated hydrocarbon conversions, 293

Bioreactor
composite membrane: possible theoretical model, 1
Boron
aromatic olefin oxygenation with tetrahydroborate and dioxygen catalyzed by manganese porphyrin, 165
Bovine serum albumin
stereoselective dioxygenation of tryptophan derivative catalyzed by Mn porphyrin included in, L5
Bradyrhizobium japonicum
mechanism of hydrogen evolution by uptake hydrogenase of, L1

Carbene
interaction of Lewis acids with alkene–carbene complex of W: formation of 1:1 adduct in solution, 193
Carbon dioxide
reactive chemisorption and methanation of, on Rh particles approaching atomic dispersion, 53
stoichiometric reduction of, to HCHO and HCOOH by $K[Ru^{III}(EDTA–H)Cl]\cdot 2H_2O$, 305
Carbon monoxide
attempts to heterogenize $Ir_4(CO)_{12}$–Al_2Cl_6 homogeneous, hydrogenation catalyst, 229
nature of hydrocarbon synthesis by means of hydrogenation of, on Fe-based catalysts:
dynamic adsorption/desorption equilibria, 143
hydrogenation-strength distribution of surface sites, 129
Carbonylation
homogeneous catalytic di-, of 1,4-dimethoxy-2-butene, 417
oxidative, of aniline catalyzed by Pd(II)-2,2′-bipyridyl complex intercalated in α-Zr–phosphate, 349
Catalytic properties
influence of cation content on, of PrHNaY zeolites in cracking of n-heptane, 265
Chalcogenides
ternary Mo; hydrosulphurization catalysis over, 275
Chemisorption
reactive, and methanation of CO_2 on Rh particles approaching atomic dispersion, 53
Chromium
characterization and catalytic activity of Cr supported on Y-zeolites, 155
interaction of $Cr(CO)_6$ with silicalite, ZSM-5 and H-Y zeolites: IR investigation, 397
Cluster(s)
giant Pd, as catalysts of oxidative reactions of olefins and alcohols, 315
supported Mo, complexes as catalyst precursors:
evaluation of catalytic activity of clusters supported on γ-alumina and fluorided γ-alumina, 381
preparation, spectroscopic characterization and thermal stability of clusters supported on γ-alumina, 371

Cobalt
kinetics and mechanism of cobalt bromide catalyzed oxidation of *p*-xylene in presence of phase transfer catalysts, 209
photochemical and photocatalytic studies of fluorophosphine-bridged Fe and Co dimers, 79
Copper
mono-oxygenation of cyclopentene by molecular oxygen catalyzed by $PdCl_2$–$CuCl_2$ in ethanol, 15
Coupling
metal complex-catalyzed phenol, of phenolic benzylisoquinoline alkaloids, 173
Cracking
of n-heptane; influence of cation content on catalytic properties of PrHNaY zeolites in, 265
Cyclotrimerization
and cocyclotrimerization of phenylacetylene with 1,7-octadiyne and 1-hexyne by Nb(V) chloride, 67

Desorption
nature of hydrocarbon synthesis by means of hydrogenation of CO on Fe-based catalysts: dynamic adsorption/desorption equilibria, 143
Diacetatodinitrosylmolybdenum complex
synthesis and properties of, as precursor for olefin metathesis catalyst, L9
Dicarbonylation
homogeneous catalytic, of 1,4-dimethoxy-2-butene, 417
Dispersion
atomic; reactive chemisorption and methanation of CO_2 on Rh particles approaching, 53

Ester
synthesis and structure of zirconium tetrachloride ester complexes, ethylene oligomerization catalyst precursors, 433

Hydroesterifications
palladium phosphine catalyzed, of unsaturated nitrogen heterocycles, 179
Hydroformylation
hept-1-ene, on phosphinated polystyrene-anchored Rh complexes, 359
of 1-hexene and stereoelectronic properties of ligands: phospholes as ligands for Rh systems in homogeneously-catalyzed hydroformylation reactions, 219
Hydrogen
high resolution ^1H MAS NMR study of anchored Zr(IV) hydride complexes, 37
mechanism of hydrogen evolution by uptake hydrogenase of *Bradyrhizobium japonicum*, L1
Hydrogenase
uptake; mechanism of hydrogen evolution by, of *Bradyrhizobium japonicum*, L1
Hydrogenation
homogeneous; thermodynamics of, of cyclohexene catalyzed by some water-soluble Ru complexes containing π-acidic ligands, 23
$Ir_4(CO)_{12}$–Al_2Cl_6 homogeneous CO, catalyst; attempts to heterogenize, 229
nature of hydrocarbon synthesis by means of, of CO on Fe-based catalysts:
dynamic adsorption/desorption equilibria, 143
hydrogenation-strength distribution of surface sites, 129
performance of Pt–Ag catalysts highly dispersed on silica gel: occurrence of Pt–Ag alloy particles and role of their solid state structure in catalytic activity, L13
Hydroperoxide
t-butyl; dichloropalladium complex assisted mono-oxygenation of cyclopentene by, 105
Hydrosulphurization
catalysis over ternary Mo chalcogenides, 275

Immuno-FET
sensor, 285
Iridium
attempts to heterogenize $Ir_4(CO)_{12}$–Al_2Cl_6 homogeneous CO hydrogenation catalyst, 229
Iron
nature of hydrocarbon synthesis by means of hydrogenation of CO on Fe-based catalysts:
dynamic adsorption/desorption

equilibria, 143
hydrogenation-strength distribution of surface sites, 129
photochemical and photocatalytic studies of fluorophosphine-bridged Fe and Co dimers, 79
Isocyano polymer supports
and their complexes with catalytically relevant transition metal centres; preparation of, 111

Ketones
α,β-unsaturated, and cyclohexadienes catalyzed by $MHCl(CO)(P^iPr_3)_2$ (M = Ru, Os) complexes; reduction of, 43

Lewis acids
interaction of, with alkene–carbene complex of W: formation of 1:1 adduct in solution, 193

Manganese porphyrin
aromatic olefin oxygenation with tetrahydroborate and dioxygen catalyzed by, 165
stereoselective dioxygenation of tryptophan derivative catalyzed by, included in bovine serum albumin, L5
Membrane
composite, bioreactor: possible theoretical model, 1
Mercaptan oxidation
influence of metal type in, on metal phthalocyanines, L17
Metal phthalocyanines
influence of metal type in mercaptan oxidation on, L17
Metathesis
olefin, catalyst; synthesis and properties of diacetatodinitrosylmolybdenum complex as precursor for, L9
Methanation
reactive chemisorption and, of CO_2 on Rh particles approaching atomic dispersion, 53
Molybdenum
hydrosulphurization catalysis over ternary Mo chalcogenides, 275
supported, cluster complexes as catalyst precursors:
evaluation of catalytic activity of clusters supported on γ-alumina and fluorided γ-alumina, 381
preparation, spectroscopic characterization and thermal stability of clusters supported on γ-alumina, 371
synthesis and properties of diacetatodinitrosylmolybdenum complex as precursor for olefin metathesis catalyst, L9

Niobium
cyclotrimerization and cocyclotrimerization of phenylacetylene with 1,7-octadiyne and 1-hexyne by Nb(V) chloride, 67
synthesis of benzocyclobutenes from reactions of α,ω-diynes catalyzed by Nb(V) and Ta(V) halides, 203
Nitrogen heterocycles
unsaturated; palladium phosphine catalyzed hydroesterifications of, 179

Olefins: see Alkenes
Oligomerization
ethylene, catalyst precursors, synthesis and structure of zirconium tetrachloride ester complexes, 433
olefin, and aromatization on parent and dehydroxylated H-ZSM-5: formation of radicals and catalytic activity of H-ZSM-5-type zeolites in unsaturated hydrocarbon conversions, 293
Osmium
reduction of α,β-unsaturated ketones and cyclohexadienes catalyzed by $MHCl(CO)(P^iPr_3)_2$ (M = Ru, Os) complexes, 43
Oxidation
kinetics and mechanism of cobalt bromide catalyzed oxidation of *p*-xylene in presence of phase transfer catalysts, 209
mercaptan; influence of metal type in, on metal phthalocyanines, L17
Oxygen
aromatic olefin oxygenation with tetrahydroborate and dioxygen catalyzed by manganese porphyrin, 165
mono-oxygenation of cyclopentene by molecular oxygen catalyzed by $PdCl_2$–$CuCl_2$ in ethanol, 15
Oxygenation
aromatic olefin, with tetrahydroborate

and dioxygen catalyzed by manganese porphyrin, 165
dichloropalladium complex assisted mono-, of cyclopentene by t-butyl hydroperoxide, 105
mono-, of cyclopentene by molecular oxygen catalyzed by $PdCl_2$–$CuCl_2$ in ethanol, 15
stereoselective dioxygenation of tryptophan derivative catalyzed by Mn porphyrin included in bovine serum albumin, L5

Palladium
dichloropalladium complex assisted mono-oxygenation of cyclopentene by t-butyl hydroperoxide, 105
giant, clusters as catalysts of oxidative reactions of olefins and alcohols, 315
mono-oxygenation of cyclopentene by molecular oxygen catalyzed by $PdCl_2$–$CuCl_2$ in ethanol, 15
oxidative carbonylation of aniline catalyzed by Pd(II)-2,2′-bipyridyl complex intercalated in α-Zr–phosphate, 349
palladium phosphine catalyzed hydroesterifications of unsaturated nitrogen heterocycles, 179
single turnover investigation of, on phosphinated oxide catalysts, 9
synthesis and catalytic activity of Pd–Sn mixed metal colloid sols, L21
Phase transfer catalysts
kinetics and mechanism of cobalt bromide catalyzed oxidation of *p*-xylene in presence of, 209
Phenylacetylene
cyclotrimerization and cocyclotrimerization of, with 1,7-octadiyne and 1-hexyne by Nb(V) chloride, 67
Phosphorus
hept-1-ene hydroformylation on phosphinated polystyrene-anchored Rh complexes, 359
oxidative carbonylation of aniline catalyzed by Pd(II)-2,2′-bipyridyl complex intercalated in α-Zr–phosphate, 349
palladium phosphine catalyzed hydroesterifications of unsaturated nitrogen heterocycles, 179
phospholes as ligands for Rh systems in homogeneously-catalyzed hydroformylation reactions: stereoelectronic properties of ligands and hydroformylation of 1-hexene, 219
photochemical and photocatalytic studies of fluorophosphine-bridged Fe and Co dimers, 79
single turnover investigations of Pd on phosphinated oxide catalysts, 9
Photochemical and photocatalytic studies of fluorophosphine-bridged Fe and Co dimers, 79
Platinum
hydrogenation performance of Pt–Ag catalysts highly dispersed on silica gel: occurrence of Pt–Ag alloy particles and role of their solid state structure in catalytic activity, L13
Polymer
preparation of isocyano polymer supports and their complexes with catalytically relevant transition metal centres, 111
Polystyrene
hept-1-ene hydroformylation on phosphinated polystyrene-anchored Rh complexes, 359
Porphyrin
manganese:
aromatic olefin oxygenation with tetrahydroborate and dioxygen catalyzed by, 165
stereoselective dioxygenation of tryptophan derivative catalyzed by, included in bovine serum albumin, L5
Potassium
stoichiometric reduction of CO_2 to HCHO and HCOOH by $K[Ru^{III}(EDTA–H)Cl]\cdot 2H_2O$, 305

Reduction
stoichiometric, of CO_2 to HCHO and HCOOH by $K[Ru^{III}(EDTA–H)Cl]\cdot 2H_2O$, 305
of α,β-unsaturated ketones and cyclohexadienes catalyzed by $MHCl(CO)(P^iPr_3)_2$ (M = Ru, Os) complexes, 43
Rhodium
effect of strong metal–support interactions on adsorption of saturated hydrocarbons on Rh/TiO_2: role of chloride, 407
hept-1-ene hydroformylation on phosphinated polystyrene-anchored Rh complexes, 359

homogeneous catalysis of water–gas shift reaction by Rh complexes in aqueous substituted pyridine solutions, 247
phospholes as ligands for Rh systems in homogeneously-catalyzed hydroformylation reactions: stereoelectronic properties of ligands and hydroformylation of 1-hexene, 219
reactive chemisorption and methanation of CO_2 on Rh particles approaching atomic dispersion, 53
Ruthenium
reduction of α,β-unsaturated ketones and cyclohexadienes catalyzed by $MHCl(CO)(P^iPr_3)_2$ (M = Ru, Os) complexes, 43
stoichometric reduction of CO_2 to HCHO and HCOOH by $K[Ru^{III}(EDTA-H)Cl]\cdot 2H_2O$, 305
thermodynamics of homogeneous hydrogenation of cyclohexene catalyzed by some water-soluble Ru complexes containing π-acidic ligands, 23

Sensor
immuno-FET, 285
Silicon
hydrogenation performance of Pt–Ag catalysts highly dispersed on silica gel: occurrence of Pt–Ag alloy particles and role of their solid state structure in catalytic activity, L13
interaction of $Cr(CO)_6$ with silicalite, ZSM-5 and H-Y zeolites: IR investigation, 397
Silver
hydrogenation performance of Pt–Ag catalysts highly dispersed on silica gel: occurrence of Pt–Ag alloy particles and role of their solid state structure in catalytic activity, L13
Spectroscopy
high recolution ^1H MAS NMR study of anchored Zr(IV) hydride complexes, 37
interaction of $Cr(CO)_6$ with silicalite, ZSM-5 and H-Y zeolites: IR investigation, 397
supported Mo cluster complexes as catalyst precursors: preparation, spectroscopic characterization and thermal stability of clusters supported on γ-alumina, 371
Surface sites
hydrogenation-strength distribution of; nature of hydrocarbon synthesis by means of hydrogenation of CO on Fe-based catalysts, 129
Synthesis
of benzocyclobutenes from reactions of α,ω-diynes catalyzed by Nb(V) and Ta(V) halides, 203
and catalytic activity of Pd–Sn mixed metal colloid sols, L21
nature of hydrocarbon, by means of hydrogenation of CO on Fe-based catalysts:
dynamic adsorption/desorption equilibria, 143
hydrogenation-strength distribution of surface sites, 129
and properties of diacetatodinitrosylmolybdenum complex as precursor for olefin metathesis catalyst, L9
and structure of zirconium tetrachloride ester complexes, ethylene oligomerization catalyst precursors, 433

Tantalum
synthesis of benzocyclobutenes from reactions of α,ω-diynes catalyzed by Nb(V) and Ta(V) halides, 203
Thermal stability
and preparation and spectroscopic characterization of clusters supported on γ-alumina; supported Mo cluster complexes as catalyst precursors, 371
Thermodynamics
of homogeneous hydrogenation of cyclohexene catalyzed by some water-soluble Ru complexes containing π-acidic ligands, 23
Tin
synthesis and catalytic activity of Pd–Sn mixed metal colloid sols, L21
Titanium
effect of strong metal–support interactions on adsorption of saturated hydrocarbons on Rh/TiO_2: role of chloride, 407
Transition metal centres
catalytically relevant; preparation of isocyano polymer supports and their complexes with, 111
Tryptophan derivative
stereoselective dioxygenation of, catal-

yzed by manganese porphyrin included in bovine serum albumin, L5
Tungsten
interaction of Lewis acids with alkene–carbene complex of: formation of 1:1 adduct in solution, 193

Water
homogeneous catalysis of water–gas shift reaction by Rh complexes in aqueous substituted pyridine solutions, 247
thermodynamics of homogeneous hydrogenation of cyclohexene catalyzed by some water-soluble Ru complexes containing π-acidic ligands, 23

Zeolites
H-ZSM-5-type: formation of radicals and catalytic activity of, in unsaturated hydrocarbon conversions: olefin oligomerization and aromatization on parent and dehydroxylated H-ZSM-5, 293
PrHNaY; influence of cation content on catalytic properties of, in cracking of n-heptane, 265
silicalite, ZSM-5 and H-Y zeolites: interaction of $Cr(CO)_6$ with: IR investigation, 397
Y-; characterization and catalytic activity of Cr supported on, 155
Zirconium
high resolution ^1H MAS NMR study of anchored Zr(IV) hydride complexes, 37
oxidative carbonylation of aniline catalyzed by Pd(II)-2,2′-bipyridyl complex intercalated in α-Zr–phosphate, 349
synthesis and structure of zirconium tetrachloride ester complexes, ethylene oligomerization catalyst precursors, 433